

deadline; therefore, no extension fee is believed to be due. However, should some unforeseen circumstance result in this paper not being filed prior to the deadline, please consider this response to include a petition for extension of time and charge Deposit Account 08-2025 for any relevant fees.

REMARKS

As filed, the Application included claims 1-24. No claims were added or amended by this paper, and no claims stand withdrawn from consideration. Hence, the Application includes claims 1-24 for examination. In view of the following arguments and citations, allowance of all claims is respectfully requested.

Claim Rejections

Claims 1, 2, and 4

Claims 1, 2, and 4 stand rejected under 35 USC § 102(b) as being anticipated by Schweitzer et al., U.S. Patent No. 5,680,324. This rejection is respectfully traversed. These claims are directed toward a controller that receives network communication activity information from a processor such as occurs with a LAN or a WAN, and indicates the activity in a visually meaningful manner.

Rejected claim 1 is illustrative. It recites an activity-level indicator that includes

(a) a controller operable to,

- i. receive an activity level of a port,
- ii. from a processor associated with the port, and
- iii. to generate a signal that is related to the activity level, and

(b) an indicator device coupled to the controller and operable to indicate the activity level in response to the signal.

For example, referring, e.g., to FIG. 3 and paragraph 30 of the patent application, a CPU-subsystem 31 reads the transmit and receive activity counts associated with a data port over a period of time, such as one second. The CPU-subsystem then generates an activity level, i.e., rate of data traffic based upon the activity counts, and provides the activity level to a controller 51. The controller 51 generates a signal that

represents the activity level for the time interval, and drives an indicator LED 40 with the signal such that the LED indicates the activity level of the port. The process is repeated for each time interval. The controller relieves the CPU-subsystem 31 from a burden of constantly generating a signal that represents the activity level, or from directly driving the activity indicator.

In contrast, Schweitzer et al. describes a communications processing apparatus for an electrical distribution system that receives data at a plurality of ports concerning an electrical power distribution system. The communications processing apparatus includes a microprocessor (50) in data communication through a plurality of ports (70). Col. 4, lines 61-63. An activity indicating LED (76) is individually connected by a voltage level shifter (72) to each port (70) of the communications processing apparatus. The level shifter (72) adjusts the voltage between the TTL voltage of the microprocessor (50) and the voltage appropriate for the ports (70) and the LEDs (76). The Schweitzer et al. system uses the data signal itself, both the incoming data signal from the remote terminals and the outgoing data signal from the microprocessor (50), to operate the LEDs. FIG. 2; cols. 4-5, lines 67-3; col. 5, lines 16-22. The communications processor (34) allows access by a remote terminal (40) and a local use terminal such as a computer (42) for human monitoring of the communication processing apparatus and optional entry of commands. FIG. 2; and col. 3, lines 23-35. However, Schweitzer et al. does not describe the human activity through the local use terminal (42) as providing any functionality to the communications processing apparatus related to receiving an activity level of a port or generating a signal related to the activity level of a port.

It is respectfully submitted that Schweitzer et al. does not anticipate the claims of the present application. Schweitzer et al. does not show, describe, or even suggest the structure defined in subparagraph (a), a controller operable to receive an activity level of a port from a processor associated with the port and to generate a signal related to the activity level. While the local use terminal (42) may input a command to the microprocessor (50) that indirectly causes a data signal to be outputted through a port (70), the local use terminal does not provide the activity level of the port outputting the signal to the microprocessor. While the microprocessor (50) transmits and receives a

data signal through the port (70), it does not provide a transmission and reception activity level to a controller. The level shifter (72) is not operable as the controller of claim 1 because it does not perform the operations of subparagraphs (a)(i)-(iii) above. See FIG. 2. Schweitzer et al. does not show, describe, or even suggest either a presence of a received activity level of a port, i.e., packets in a time interval, or a presence of a generated signal related to an activity level of a port. Furthermore, Schweitzer et al. does not show, describe, or even suggest the structure defined subparagraph (b), an indicator that indicates activity in response to the activity level related signal.

From the above, it is respectfully submitted that claims 1, 2, and 4 are clearly allowable over Schweitzer et al. Dependent claims 2 and 4 are also allowable at least by virtue of their dependency.

It should be noted that claims 2, 6, and 11 are directed to a finite number of activity levels for the single activity indicator associated with a single port, not a finite number of activity indicators.

Claim 3

Claim 3 stands rejected under 35 USC § 103(a) as being unpatentable over Schweitzer et al. in view of Melvin et al., U.S. Patent No. 6,067,619. This rejection is respectfully traversed. Claim 3 is dependent on claim 1, and further defines an activity-level indicator device where a port activity level is indicated by flashes.

Conversely, as set forth above, Schweitzer et al. does not describe the port activity-level indicator of claim 1. Further, Melvin et al. merely discloses a computer network device where an LED is flashed to confirm an operational status of a port, such as a normal operation or a malfunction, and not a level of activity occurring through a port. Col. 2, lines 54-61. While Melvin et al. might teach or suggest flashing an LED to indicate an operational status of a port in Schweitzer et al., Melvin et al. does not teach or suggest the claim limitations of dependent claim 3 that includes flashing an indicator to indicate an activity level of a port. It is respectfully requested that claim 3 be allowed over the combination of Schweitzer et al. and Melvin et al.

Claims 5, 6, 8-11, and 15-24

Claims 5, 6, 8-11, and 15-24 stand rejected under 35 USC § 103(a) as being unpatentable over Schweitzer et al. in view of Liu et al., U.S. Patent No. 5,936,442. This rejection is respectfully traversed. Rejected claim 5 is illustrative and recites an activity level indicator that includes,

- (a) a controller operable to receive an activity level of a port from a processor associated with the port and to generate a signal that is related to the activity level, the signal comprising a series of separated pulses, the separation between pulses being a non-linear function of the activity level, and
- (b) an indicator device coupled to the controller and operable to indicate the activity level in response to the signal.

For example, referring, e.g., to FIG. 3 and to paragraph 36 of the patent application, a logic state machine 54 reads a port activity level from the CPU subsystem, and generates a signal of separated pulses to operate the indicator device. Because of the high-speed networks presently being used, simply blinking an LED at a rate proportional to the traffic count may cause an LED to appear on continuously to the human eye, suggesting network saturation or congestion when in fact the network is operating at a small fraction of its capacity. See paragraphs 12 and 42 of the patent application. Because the separation between pulses is a non-linear function of network activity, the network activity can be indicated in a manner meaningfully perceived by a human.

Conversely, as set forth above, Schweitzer et al. does not describe the port activity-level indicator of claim 5. Further, Liu et al. describes a power-shut off and recovery circuit that includes a circuit to detect a state of a port, such as active or inactive. Col 5, line 37. Liu et al. includes a signal detection circuit (22c) that is coupled to a port of the plurality of ports (40). When the signal detection circuit (22c) detects activity on its one associated port (Rxi), the detection circuit generates "a pulse" indicating an active port state. The pulse is provided to a latch circuit that asserts an output signal to engage or disengage a power source. Col. 5, lines 9-26. Liu et al.

teaches and suggests only generating a single-pulse signal to indicate a state, either active or inactive. Liu et al. does not teach or suggest the limitations of claim 5 that an activity level of an active port (as opposed to a state) be indicated by a series of pulses. Additionally, Liu et al. does not teach or suggest a series of pulses representing an activity level of a port at a given time where the separation between pulses is a non-linear function of the activity level.

Independent claims 9, 15-17, 20, 22, and 24 are similarly directed to a series of separated or randomized pulses that are a function of activity level of a port. It is respectfully requested that independent claims 5, 9, 15-17, 20, 22, and 24 be allowed over the combination of Schweitzer et al. In view of Liu et al. The claims dependent on these independent claims are similarly allowable at least by virtue of their dependency.

CONCLUSION

Claims 1-24 have been presented here for examination. For the foregoing reasons, it is respectfully submitted that all claims are in condition for allowance. By the foregoing, this paper responds fully to all of the concerns expressed in the Office Action, and has demonstrated that each of the pending claims is in condition for immediate allowance. Favorable reconsideration and allowance of the pending claims are therefore respectfully requested.

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